

ABSTRACT OF THE DISCLOSURE

A process for producing a lithographic printing plate by on-press developing a heat-sensitive lithographic printing plate precursor having on a metallic base in this order (1) an ink-receptive layer , (2) a hydrophilic layer containing colloidal particles of an oxide or hydroxide of at least one element, e.g., silicon or aluminum, and (3) a hydrophilic overcoat layer capable of being removed on a printing machine, which includes: rotating a plate cylinder having attached thereto the heat-sensitive lithographic printing plate precursor which has been exposed; subsequently supplying an ink and a dampening water to the plate surface by simultaneously bringing a dampening roll and an inking roll into contact with the plate surface or by bringing a water-metering roll into contact with an inking roll and then bringing the inking roll, which functions also to dampen, into contact with the plate surface; and thereby removing the overcoat layer and the exposed parts of the hydrophilic layer.